DAFTAR ISI

BAB 3
WINDOWS EXPLORER

Mulai Bab 3 ini dan selanjutnya, kita akan mencoba membuat tiruan program-program aplikasi pada Windows dengan memanfaatkan pola VB Enterprise Edition Controls.

Program pertama ini mencontoh aplikasi Windows Explorer, untuk menampilkan folder dan file pada komputer Anda.

3.1 Desain Form

Buatlah folder baru, namai dengan "Explorer". Jalankan Visual Basic, pilih pola VBEnterprise Edition Controls.

Pada form, sisipkan objek ImageList, namai dengan "imgMain". Klik kanan pada imgMain, pilihlah 16 x 16 pada tab General. Klik tab Images dan klik **Insert Picture...** Masukkan 25 gambar ikon (ikon-ikon disediakan pada CD yang disertakan).

Ubah nama Key dari tiap-tiap Image seperti table di bawah ini.

Index	Key	Index	Key
1	komputer	14	xls
2	ini	15	mdb
3	inf	16	recycle

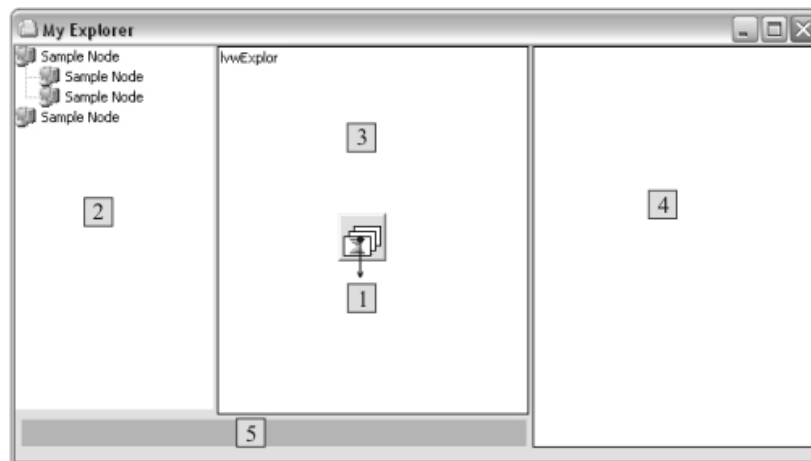
4	mid	17	filegeneric
5	wav	18	mp3
6	bat	19	folder1
7	exe	20	folder2
8	dll	21	diska
9	imf	22	cdrom
10	txt	23	desktop
11	jpg	24	disket
12	drivelepas	25	diskanet
13	doc		

Catatan:

Hati-hati dalam pemberian nama Key dari Image-Image pada ImageList. Perbedaan huruf besar dan huruf kecil sangat berpengaruh pada hasil (bersifat case sensitif).

Sisipkan objek kontrol dan atur propertinya seperti pada table di bawah ini:

Pengaturan pada:		**Form1**	
No	**Objek Kontrol**	**Properti**	**Perubahan**
2	TreeView	Name	tvwExplor
		ImageList	imgMain
3	ListView	Name	lvwExplor
		ImageList	imgMain
4	RichTextBox	Name	rtbExplor
		Appearance	0-rtfFlat
		ScrollBar	3-rtfBoth
5	ProgressBar	Name	pgbExplor
		Scrolling	1-ccScrollingSmooth

Simpan semua komponen project di direktori "Explorer".

Gambar 3.1. Desain form Explorer.

Setelah desain form selesai, klik menu **Project-References...** Pada dialog "References-Project1", tandai kotak periksa dari list "Microsoft Scripting Runtime". Jika Anda tidak menemukan list ini, klik tombol **Browse...** Pada kotak dialog "Add References", kliklah file "scrrun.dll" (alamat menunjukkan direktori Windows\System atau Windows\System32). Klik **Open**.

3.2 Baris Kode

```
1   Option Explicit

2   Private Declare Function SendMessage _
    Lib "user32" Alias "SendMessageA" ( _
    ByVal hwnd As Long, ByVal wMsg As Long, _
    ByVal wParam As Long, lParam As Any) As Long

3   Private ObjekFile As New FileSystemObject
4   Dim strPathX As String
5   Dim TwipsInHimetric!
6   Dim sPath As String

7   Private Sub Form_Load()
8   On Error Resume Next
```

```
 9      Dim drvDrive As Drive
10      Dim strIkon As String
11      Dim strNama As String
12      Dim fldFolder As Folder
13      Dim fldDrive As Folder

14      TwipsInHimetric = ScaleX(1, vbTwips, _
        vbHimetric)

    'Mengenali semua drive pada sistem komputer
15      For Each drvDrive In ObjekFile.Drives
16          If drvDrive.DriveType = CDRom Then
17              strIkon = "cdrom"
18              If drvDrive.IsReady Then
19                  strNama = drvDrive.VolumeName
20              Else: strNama = "CD-ROM"
21              End If

22          ElseIf drvDrive.DriveType = Fixed Then
23              strIkon = "diska"
24              If drvDrive.IsReady Then
25                  strNama = drvDrive.VolumeName
26              Else: strNama = "Hard Drive"
27              End If

28          ElseIf drvDrive.DriveType = Remote Then
29              strIkon = "diskanet"
30              If drvDrive.IsReady Then
31                  strNama = drvDrive.ShareName
32              Else: strNama = "Network Drive"
33              End If

34          ElseIf drvDrive.DriveType = Removable _
                Then
35              If drvDrive.DriveLetter = "A" Or _
                    drvDrive.DriveLetter = "B" Then
36                  strIkon = "disket"
37              Else: strIkon = "drivelepas"
38              End If

39                  If drvDrive.IsReady Then
20                    strNama = drvDrive.VolumeName
21                  Else

22              If drvDrive.DriveLetter = "A" Or _
                    drvDrive.DriveLetter = "B" Then
23                  strNama = "Floppy Drive"
24                  Else: strNama = "Drive Lepas"
25              End If
26              End If

27          If drvDrive.IsReady Then
28              strNama = drvDrive.VolumeName
29          Else
30              strNama = "Tidak diketahui"
31          End If
```

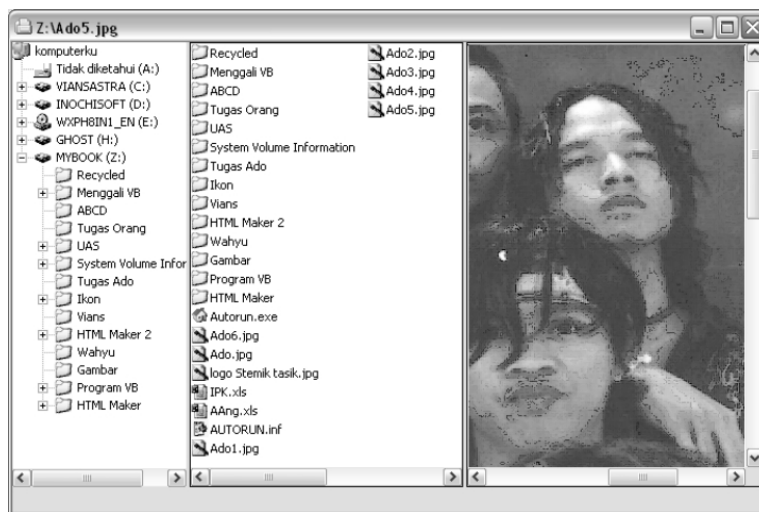
```
32        End If

          'Membuat cabang pada TreeView dengan teks "Komputer"
33        tvwExplor.Nodes.Add , , "pc", _
          "komputerku", "komputer", "komputer"

34        tvwExplor.Nodes.Add "pc", _
          tvwChild, drvDrive.Path, _
          strNama & " (" & _
          UCase(drvDrive.DriveLetter) & ":)", strIkon

35        If drvDrive.IsReady Then
36            Set fldDrive = ObjekFile.GetFolder( _
              drvDrive.RootFolder)

37        For Each fldFolder In fldDrive.SubFolders

          'Membuat daftar Drive pada TreeView
38          tvwExplor.Nodes.Add drvDrive.Path, 4, _
            fldFolder.Path, fldFolder.Name, "folder1"
39        Next

40        End If
41        Next

      'Memilih cabang pada TreeView
42        Me.tvwExplor.Nodes(1).Selected = True
43    End Sub

44    Private Sub Form_Resize()

      'Mengatur letak dan ukuran kontrol-kontrol pada form
      'saat form berubah ukuran
45        Me.tvwExplor.Move tvwExplor.Left, _
          tvwExplor.Top, tvwExplor.Width, _
          Me.ScaleHeight - Me.pgbExplor.Height

46        Me.lvwExplor.Move lvwExplor.Left, _
          lvwExplor.Top, Me.lvwExplor.Width, _
          Me.ScaleHeight - Me.pgbExplor.Height

47        Me.pgbExplor.Move 0, Me.ScaleHeight - _
          Me.pgbExplor.Height, Me.ScaleWidth, _
          Me.pgbExplor.Height

48        Me.rtfExplor.Width = Me.ScaleWidth - _
          Me.lvwExplor.Width - _
          Me.tvwExplor.Width – 100

49        Me.rtfExplor.Height = Me.ScaleHeight - _
          Me.pgbExplor.Height
50    End Sub

51    Private Sub lvwExplor_ItemClick( _
      ByVal Item As MSComctlLib.ListItem)
52        Dim nSt As Integer
```

```
    'Menuliskan alamat direktori pada TitleBar form

53      Me.Caption = strPathX & IIf( _
        Len(strPathX) <= 4, "", "\") & Item.Text

    'Memanggil prosedur LihatFile
54      LihatFile Me.Caption
55  End Sub

56  Private Sub tvwExplor_Collapse( _
    ByVal Node As MSComctlLib.Node)
57   If Node.Image = "folder2" Then _
    Node.Image = "folder1"
58  End Sub

59  Private Sub tvwExplor_Expand( _
    ByVal Node As MSComctlLib.Node)
60      On Error Resume Next
61      Dim SubSubfolder As Folder
62      Dim Subfolder As Folder
63      Dim fldFolder As Folder
64      Dim i%

65      If Node.Image = "folder1" Then _
        Node.Image = "folder2"

66      Set fldFolder = ObjekFile.GetFolder( _
67      Node.Key & "\")

68    For Each Subfolder In fldFolder.SubFolders
39    For Each SubSubfolder In Subfolder.SubFolders

    'Menampilkan nama-nama direktori dan sub direktori
    'ke dalam TreeView
70       tvwExplor.Nodes.Add Subfolder.Path, 4, _
          SubSubfolder.Path, _
            SubSubfolder.Name, "folder1"
71          i = i + 1

    'Mengatur pergerakan ProgressBar
72          Me.pgbExplor.Value = i / _
                fldFolder.SubFolders.Count * 100
73              DoEvents
74    Next
75          If Me.pgbExplor.Value >= 100 Then
76              Me.pgbExplor.Value = 0
77              i = 0
78          End If
79    Next
80  End Sub

81  Private Sub tvwExplor_NodeClick( _
    ByVal Node As MSComctlLib.Node)
82      On Error Resume Next
83      Dim SubSubfolder As Folder
```

```
 84      Dim fldFolder As Folder
 85      Dim filFile As File
 86      Dim Subfolder As Folder

 87      lvwExplor.ListItems.Clear
 88      Set fldFolder = ObjekFile.GetFolder( _
                         Node.Key & "\")

 89      strPathX = fldFolder
 90      Me.Caption = strPathX
 91      Dim xFile$, i As Integer

         For Each Subfolder In fldFolder.SubFolders
             lvwExplor.ListItems.Add , _
 92          Subfolder.Path, Subfolder.Name, _
 93          "folder1", "folder1"
             i = i + 1
             Me.pgbExplor.Value = i / _
 94          fldFolder.SubFolders.Count * 100
 95          DoEvents
         Next

         'Menampilkan nama-nama file ke dalam
         'ListView
 96      For Each filFile In fldFolder.Files
 97           xFile = LCase(Right(filFile.Name, 3))
 98           lvwExplor.ListItems.Add , _
              fldFolder.Path & "\" & _
              filFile.Name, filFile.Name, _
                   xFile, xFile

 99           i = i + 1
100          Me.pgbExplor.Value = i / _
             fldFolder.Files.Count * 100

101            If Err Then
102                lvwExplor.ListItems.Add , _
                   fldFolder.Path & "\" & _
                   filFile.Name, filFile.Name, _
                   "filegeneric", "filegeneric"
103            End If
104      Next

105      If Me.pgbExplor.Value >= 100 Then
106          Me.pgbExplor.Value = 0
107          i = 0
108      End If
109  End Sub

     'Prosedur untuk menampilkan isi file
110  Sub LihatFile(sFile As String)
111     rtfExplor.Locked = False
112     rtfExplor.Font.Size = 8
113     rtfExplor.Text = ""
114     rtfExplor.SelAlignment = 0
115     rtfExplor.RightMargin = 0
```

```
116     sPath = sFile

     'Memilih tipe file
117     On Error GoTo ErrHandler
118        Select Case LCase(Right$(sFile, 4))
119            Case ".bmp", ".jpg", ".gif"
120                 Dim pic As StdPicture
121                 Set pic = LoadPicture(sPath)

122                 Clipboard.Clear
123                 Clipboard.SetData pic

124                 SendMessage rtfExplor.hwnd, _
                    &H302, 0, 0

125                 Clipboard.Clear

126                 rtfExplor.RightMargin = _
                    pic.Width \ TwipsInHimetric
127            Case ".rtf"
128                 rtfExplor.LoadFile sPath, rtfRTF
129            Case ".txt"
130                 rtfExplor.LoadFile sPath, _
                    rtfText
131            Case Else
132                 rtfExplor.LoadFile sPath, _
                    rtfText
133        End Select

134     rtfExplor.Refresh
135     rtfExplor.Locked = True
136     Exit Sub

     'Penanganan kesalahan jika tipe file
     ' tidak dikenali
137  ErrHandler:
138     On Error GoTo 0
139     rtfExplor.Text = "Format tidak dikenal"
140     rtfExplor.Refresh
141     rtfExplor.Locked = True
142  End Sub
```

3.3 Tes Program

Jalankan program! Tampilan program saat berjalan akan tampak seperti ilustrasi Gambar 3.2 berikut.

Gambar 3.2. Program sedang berjalan dan menampilkan file gambar.